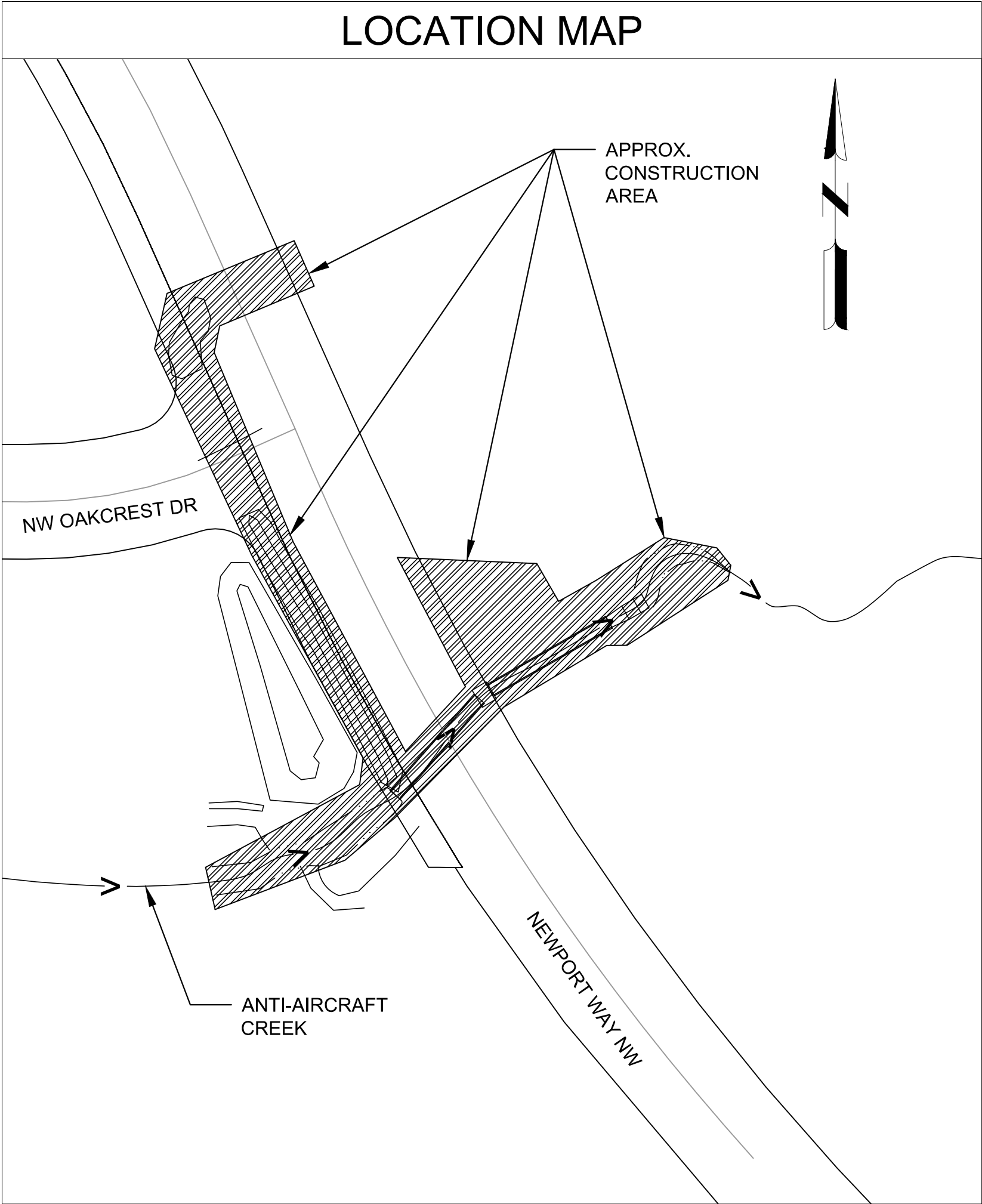
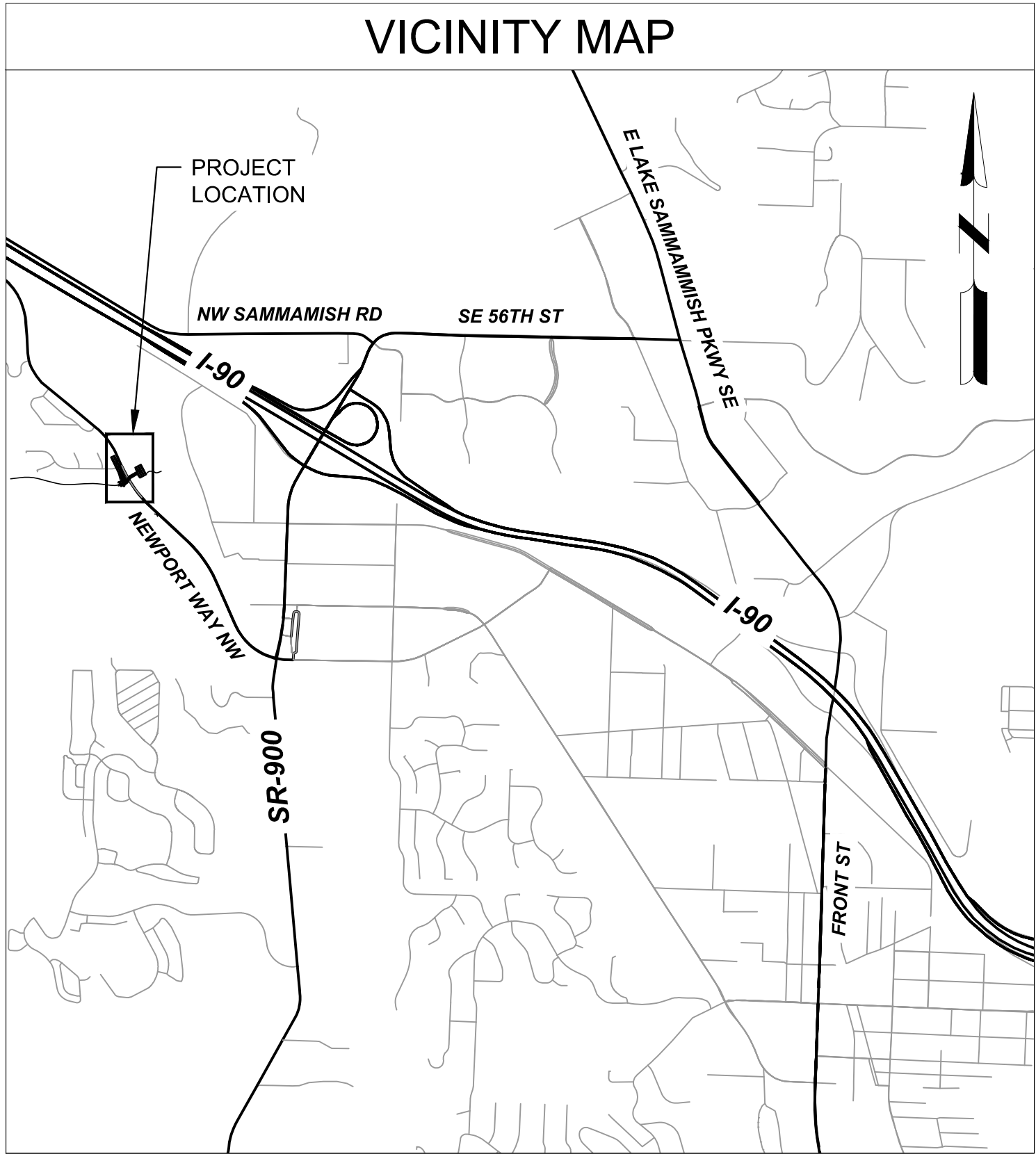


# ANTI-AIRCRAFT CREEK CULVERT REPLACEMENT

CITY OF ISSAQUAH  
CITY PROJECT NO: g02512  
50% DESIGN REVIEW SUBMITTAL  
JANUARY 05, 2015



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CITY OF ISSAQUAH  
ANTI-AIRCRAFT CREEK  
CULVERT REPLACEMENT  
50% DESIGN REVIEW SUBMITTAL  
ISSAQUAH, WA 98027

ISSUED

NOT FOR CONSTRUCTION

M&H NO.: 4134300-132044.01  
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SHEET CONTENTS  
COVER SHEET

SHEET NO. 1 of 10

G-001

STANDARD TESC PLAN NOTES FOR CITY PROJECTS

1. TESC COORDINATION
- a. A CERTIFIED EROSION AND SEDIMENT CONTROL LEAD (CESCL) SHALL BE DESIGNATED BY THE CONTRACTOR AS THE PROJECT'S TESC SUPERVISOR AND SHALL BE RESPONSIBLE FOR THE PERFORMANCE, MAINTENANCE, AND REVIEW OF TESC MEASURES AND FOR COMPLIANCE WITH ALL PERMIT CONDITIONS RELATED TO TESC. THE TESC SUPERVISOR SHALL BE CERTIFIED BY THE DEPARTMENT OF ECOLOGY'S TRAINING REQUIREMENT.

b. CONTRACTOR'S REVISED TESC PLANS. THE TESC MEASURES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. THE CONTRACTOR MAY REVISE THE TESC MEASURES SHOULD THEY DETERMINE THAT THERE IS A NEED TO BE MODIFIED TO COMPLY WITH THE PERMIT CONDITIONS OR IF THERE IS A MORE EFFECTIVE AND EFFICIENT WAY TO MEET THE PERFORMANCE OBJECTIVES FOR THE DURATION OF THE PROJECT.

c. IMPLEMENTING REVISED TESC PLANS. THE CONTRACTOR SHALL CONSULT WITH THE CITY PRIOR TO IMPLEMENTING ANY CHANGES TO ENSURE COMPLIANCE WITH CITY PERMITS, THE CONTRACT, AND THAT THE CHANGES DO NOT NEGATIVELY IMPACT PROPERTY OR PUBLIC SAFETY.

d. AN ONSITE TESC PRECONSTRUCTION MEETING SHALL BE HELD BEFORE ANY WORK BEGINS TO REVIEW IMPLEMENTATION OF THE TESC PLANS AND REPORT.
2. INITIAL TESC INSTALLATION
- a. ALL TESC FACILITIES SHOWN ON THE PLANS SHALL BE INSTALLED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE SEDIMENT-LADEN WATER DOES NOT ENTER THE CITY DRAINAGE SYSTEM, SURFACE WATERS, OR WETLANDS. ADJACENT PROPERTIES SHALL BE PROTECTED FROM SEDIMENT-LADEN RUNOFF. IF NOT SPECIFICALLY SHOWN ON THE PLANS OR THE TESC REPORT, INSTALLATION SHALL BE DONE IN ACCORDANCE WITH APPENDIX D OF THE KING COUNTY SURFACE WATER DESIGN MANUAL, "EROSION AND SEDIMENT CONTROL STANDARDS", OR AS DIRECTED BY THE CITY.

b. CLEARING LIMITS AND TREE PROTECTION BOUNDARIES SHOWN ON THE PLANS SHALL BE CLEARLY FLAGGED BY SURVEY TAPE OR FENCING PRIOR TO CONSTRUCTION. NO DISTURBANCE BEYOND THE CLEARING LIMITS IS ALLOWED.

c. STABILIZED CONSTRUCTION ENTRANCES SHOWN ON THE PLANS SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ONSITE ROADS AND PAVED AREAS SHALL BE KEPT CLEAN TO MINIMIZE TURBIDITY IN RUNOFF. ADDITIONAL MEASURES, SUCH AS CONSTRUCTED WHEEL WASH SYSTEMS OR WASH PADS, IF SHOWN ON THE PLANS, ARE REQUIRED TO ENSURE SEDIMENT IS NOT TRACKED OUT TO CITY STREETS. ANY DIRT TRACKED ONTO CITY STREETS SHALL BE SWEEP AS NEEDED OR AS DIRECTED BY THE CITY OF ISSAQUAH. STREET SWEEPING IS NOT CONSIDERED A TESC MEASURE.

d. COVERING OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO CONSECUTIVE DAYS DURING THE WET SEASON (OCT 1 TO APRIL 30) OR SEVEN DAYS DURING THE DRY SEASON (MAY 1 TO SEPT 30) SHALL BE DONE USING APPROVED TESC METHODS (E.G. SEEDING, MULCHING, PLASTIC COVERING, ETC.). THESE TIME LIMITS MAY BE MODIFIED BY THE CITY TO ADDRESS SPECIFIC SITE AND WEATHER CONDITIONS.

e. COLLECTION AND TREATMENT OF RUNOFF USING DITCHES, SWALES, OR PIPES IS REQUIRED TO ROUTE STORMWATER TO COLLECTION POINTS WHERE IT IS TREATED PRIOR TO INFILTRATION OR DISCHARGE OFFSITE. WHEN SHOWN ON THE PLANS, TEMPORARY STORAGE FACILITIES SUCH AS PONDS AND TANKS SHALL BE INSTALLED AT THE ONSET OF CONSTRUCTION, REGARDLESS OF THE TIME OF YEAR.

f. DISCHARGE TO THE SANITARY SEWER IS ALLOWED UPON APPROVAL FROM THE CITY OR SAMMAMISH PLATEAU WATER AND SEWER DISTRICT AND THE KING COUNTY INDUSTRIAL WASTE PROGRAM. PRETREATMENT PRIOR TO DISCHARGE IS REQUIRED TO MEET COUNTY OR SEWER DISTRICT STANDARDS.

g. WORKING IN STREAMS. ALL IN-WATER WORK WITHIN WATERS OF THE STATE SHALL BE CONDUCTED DURING THE HPA-SPECIFIED FISH WINDOW. ANY EQUIPMENT WORKING WITHIN REGULATED WATERS SHALL BE EQUIPPED WITH VEGETABLE-BASED (NON-TOXIC) HYDRAULIC FLUIDS, AND APPROPRIATE METHODS SHALL BE EMPLOYED TO DIVERT THE STREAM AROUND THE WORKING AREA OR ISOLATE THE WORKING AREA FROM THE STREAM USING BARRIERS.
3. ROUTINE TESC MAINTENANCE
- a. MAINTENANCE OVER DURATION OF PROJECT. ALL TESC MEASURES SHALL BE MAINTAINED BY THE TESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION, UNTIL FINAL LANDSCAPING OR OTHER PERMANENT SITE STABILIZATION IS COMPLETE

b. ROUTINE INSPECTIONS. THE TESC FACILITIES SHALL BE INSPECTED BY THE TESC SUPERVISOR DAILY OR MORE OFTEN DURING RAINFALL, AND MAINTAINED TO ENSURE PROPER FUNCTIONING. WRITTEN DOCUMENTATION IS REQUIRED FOR DISCHARGES ABOVE 25 NTUS AND SHALL BE READILY AVAILABLE AT THE PROJECT SITE.

c. OFFSITE PUMPING. THE TESC SUPERVISOR SHALL NOTIFY THE CITY OF ISSAQUAH PRIOR TO PUMPING ANY DISCHARGE OFFSITE OR TO CRITICAL AREAS.

d. INACTIVE SITES. TESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN 24 HOURS FOLLOWING A STORM EVENT.

e. PREPARATION FOR WET SEASON. PRIOR TO THE BEGINNING OF THE WET SEASON (OCT 1), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED OR OTHERWISE COVERED IN PREPARATION FOR THE WINTER RAINS. IF COVER MEASURES ARE NOT ESTABLISHED BY OCT 1, ADDITIONAL TESC MEASURES SHALL BE REQUIRED.
4. TURBIDITY MONITORING
- a. MONITORING RESPONSIBILITY. THE CITY'S INSPECTOR WILL MEASURE THE TURBIDITY OF STORMWATER LEAVING THE SITE AT THE DESIGNATED MONITORING POINT(S) TO VERIFY COMPLIANCE WITH TURBIDITY DISCHARGE LIMITS THAT ARE SPECIFIED BELOW.

b. MONITORING LOCATION. THE TURBIDITY MONITORING LOCATION, WHERE THE INSPECTOR WILL MEASURE TURBIDITY FOR COMPLIANCE, IS SHOWN ON THE TESC PLANS. FOR PROJECT SITES WHERE DESIGNATING A MONITORING POINT IS NOT FEASIBLE (E.G. FLAT SITES OR LINEAR UTILITY PROJECTS), THE MONITORING LOCATIONS WILL BE AT THE DISCRETION OF THE INSPECTOR.

c. 25 NTU ACTION LEVEL. THE TESC SUPERVISOR SHALL BE NOTIFIED OF DISCHARGES ABOVE 25 NTUS. THE TESC SUPERVISOR SHALL REVIEW AND MODIFY THE TESC MEASURES AS NEEDED TO KEEP DISCHARGES FROM THE SITE BELOW 25 NTUS.

d. 100 NTU DISCHARGE LIMIT. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING TESC MEASURES SO THAT DISCHARGE FROM THE PROJECT SITE SHALL NOT EXCEED 100 NTUS AT ALL TIMES UP TO THE 10 YEAR/24 HOUR STORM EVENT. THIS EVENT IS DEFINED AS 3.5 INCHES OF RAINFALL OVER A 24 HOUR PERIOD.
5. OTHER POLLUTION CONTROL MEASURES
- a. POLLUTION CONTROL. THE CONTRACTOR SHALL IMPLEMENT ALL REQUIREMENTS OF THE TESC REPORT AND STORMWATER POLLUTION PREVENTION PLAN, INCLUDING STORAGE AND HANDLING OF HAZARDOUS MATERIALS, CONCRETE HANDLING AND WASTEWATER DISPOSAL, SPILL KITS AND SPILL RESPONSE, AND OTHER MEASURES AS NEEDED.

b. CONTROL OF PROCESS WATER. THE CONTRACTOR SHALL USE THE APPROPRIATE POLLUTION CONTROL MEASURES TO ENSURE THAT NO LIQUID PRODUCTS OR CONTAMINATED WATER SUCH AS RUNOFF FROM CONCRETE SLURRY (KNOWN AS PROCESS WATER) ENTERS THE STORM DRAINAGE SYSTEM, SURFACE WATERS, OR OTHERWISE LEAVES THE PROJECT SITE.
6. FINAL SITE STABILIZATION
- a. FINAL STABILIZATION. THE CONTRACTOR SHALL INSTALL ALL TESC NEEDED FOR FINAL STABILIZATION AT COMPLETION OF FINISH GRADING. THIS SHALL BE DONE WITHIN TWO CONSECUTIVE DAYS DURING THE WET SEASON (OCT 1 TO APRIL 30), SEVEN DAYS DURING THE DRY SEASON (MAY 1 TO SEPT 30) OR AS DIRECTED BY THE CITY.

b. REMOVAL OF TESC FACILITIES. THE CONTACTOR SHALL REMOVE ALL TESC FACILITIES, EXCEPT THOSE THAT WILL REMAIN (SUCH AS SEED AND MULCH) AFTER FINAL STABILIZATION OF THE SITE.

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SHEET CONTENTS  
NOTE SHEET

SHEET NO. 2 of 10

G-002

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SHEET CONTENTS  
SITE PLAN

SHEET NO. 3 of 10

C-101

## LEGEND

- POWER/UTILITY POLE
- TRAFFIC SIGNAL BOX
- LUMINAIRE
- GUY ANCHOR
- AREA LIGHT
- BOLLARD
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- HOSE BIB
- COMMUNICATION PEDESTAL
- TRAFFIC SIGN
- SS SANITARY SEWER LINE
- W WATER LINE
- SD STORM DRAIN LINE
- G GAS LINE
- OHE OVERHEAD POWER LINE
- FOC COMMUNICATION/FIBER OPTIC LINE
- GUARD RAIL
- E UNDERGROUND POWER
- PROJECT LIMIT

## HORIZONTAL CONTROL

NEWPORT WAY NW				
NUMBER	LENGTH	RADIUS	LINE / CHORD DIRECTION	A VALUE
C1	387.361	1432.690	SOUTH31° 48' 54.29"EAST	
L1	162.640		S24° 04' 10.03"E	

PROPOSED FLOW PATH				
NUMBER	LENGTH	RADIUS	LINE / CHORD DIRECTION	A VALUE
C2	12.252	41.130	SOUTH67° 56' 21.29"WEST	
C3	7.333	21.295	SOUTH69° 16' 11.68"WEST	
C4	4.657	21.295	SOUTH72° 52' 11.85"WEST	
C5	6.259	21.295	SOUTH58° 11' 06.33"WEST	
C6	3.307	21.295	SOUTH54° 12' 50.29"WEST	
C7	6.537	21.295	SOUTH49° 52' 07.14"WEST	
C8	7.281	21.295	SOUTH50° 52' 08.83"WEST	
C9	10.077	12.162	SOUTH36° 55' 42.18"WEST	
C10	6.405	8.063	SOUTH35° 56' 55.12"WEST	
C11	3.056	6.310	SOUTH72° 34' 44.47"WEST	
C12	14.922	19.995	NORTH72° 10' 00.19"WEST	
L2	13.613		S76° 28' 23.57"W	
L3	5.555		S59° 24' 19.01"W	
L4	8.941		S79° 08' 04.35"W	
L5	11.152		S66° 36' 19.34"W	
L6	16.212		S49° 45' 53.31"W	
L7	11.978		S58° 39' 47.27"W	
L8	64.823		S41° 04' 27.02"W	
L9	89.366		S60° 39' 50.64"W	
L10	10.297		S13° 11' 33.71"W	
L11	7.309		S58° 42' 16.52"W	
L12	6.722		S86° 27' 12.43"W	
L13	10.526		N50° 47' 12.81"W	

## PRECAST REINFORCED CONCRETE SPLIT CULVERT LOCATION COORDINATES

START NORTHING	201981.1291
START EASTING	1334856.6176
MIDPOINT NORTHING	202033.8410
MIDPOINT EASTING	1334902.9036
END NORTHING	202071.5999
END EASTING	1334968.6945

## PROJECT SUMMARY

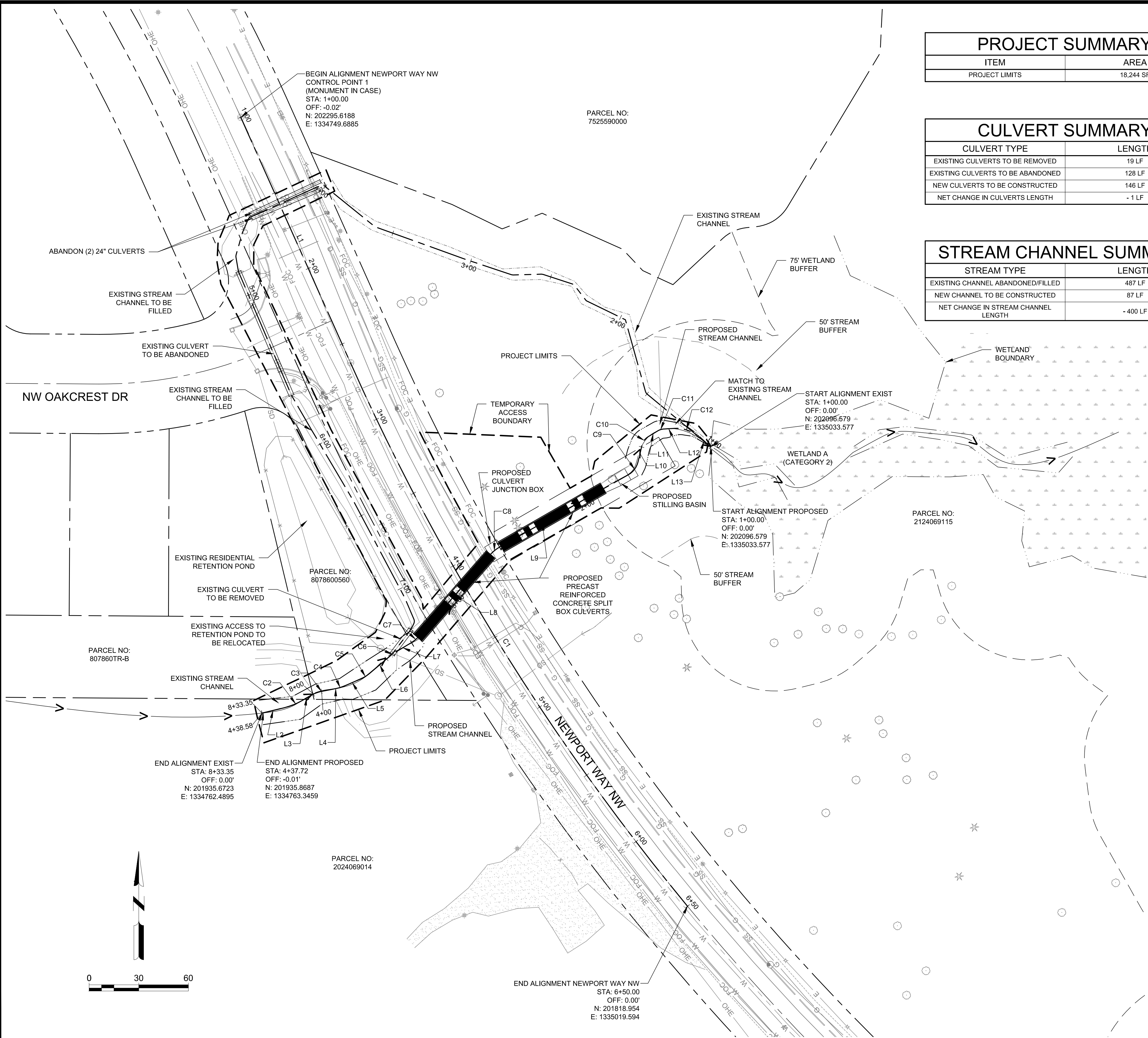
ITEM	AREA
PROJECT LIMITS	18,244 SF

## CULVERT SUMMARY

CULVERT TYPE	LENGTH
EXISTING CULVERTS TO BE REMOVED	19 LF
EXISTING CULVERTS TO BE ABANDONED	128 LF
NEW CULVERTS TO BE CONSTRUCTED	146 LF
NET CHANGE IN CULVERTS LENGTH	- 1 LF

## STREAM CHANNEL SUMMARY

STREAM TYPE	LENGTH
EXISTING CHANNEL ABANDONED/FILLED	487 LF
NEW CHANNEL TO BE CONSTRUCTED	87 LF
NET CHANGE IN STREAM CHANNEL LENGTH	- 400 LF





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SHEET CONTENTS  
TEMPORARY EROSION  
AND SEDIMENT  
CONTROL

SHEET NO. 4 of 10

C-201

## GENERAL NOTES

- EROSION CONTROL BMP'S AS SHOWN ARE THE MINIMUM REQUIRED TO BEGIN CONSTRUCTION. ADDITIONAL BMP'S SHALL BE IMPLEMENTED AS NEEDED TO PREVENT TRANSPORT OF SEDIMENT FROM THE SITE.
- PROVIDE DUST CONTROL BY WATERING WHEN NEEDED OR AS DIRECTED BY CITY INSPECTOR.
- STABILIZE BARE EARTH AREAS THAT ARE NOT WORKED WITH FINAL LANDSCAPING OR TEMPORARY MULCHING/COVER AS REQUIRED BY CITY INSPECTOR.
- FINAL GRADE CONTOURS ARE SHOWN FOR REFERENCE ONLY.
- GRADING FOR THIS PROJECT INCLUDES FILLING OF THE EXISTING STREAM CHANNEL WHERE SHOWN, EXCAVATION OF THE NEW STREAM CHANNEL AS SHOWN, AND FILLING OVER THE NEW CULVERT. FUTURE GRADING ON SITE TO BE PERFORMED BY A SEPARATE RIVA TOWNHOME PROJECT.
- SEE SHEET G-002 FOR STANDARD TESC PLAN NOTES FOR CITY PROJECTS.

## EROSION CONTROL LEGEND

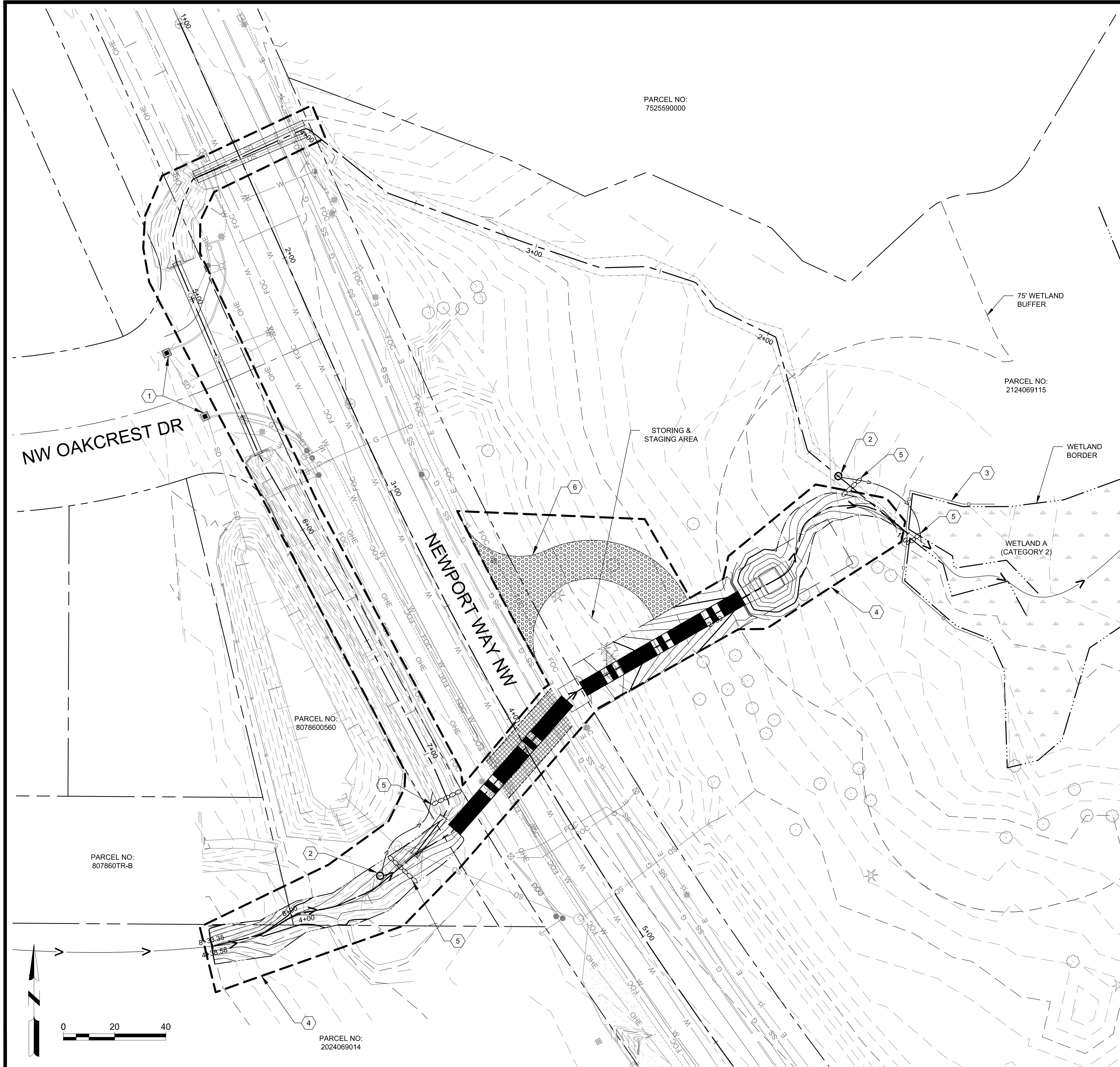
- CLEARING LIMIT
- SAWCUT LINE
- HIGH VISIBILITY FENCE
- INLET PROTECTION (EXISTING CATCH BASIN)
- SANDBAG DIVERSION DAM
- DIVERSION PUMP
- TEMPORARY CONSTRUCTION ENTRANCE

## EROSION CONTROL KEYED NOTES

- 1 INLET PROTECTION (EXIST. CATCH BASIN)
- 2 DIVERSION PUMP (DIVERT FLOWING WATER DOWNSTREAM AROUND CONSTRUCTION AREA IF WATER IS PRESENT)
- 3 HIGH VISIBILITY SILT FENCE
- 4 CLEARING LIMITS
- 5 SANDBAG DIVERSION DAM
- 6 TEMPORARY CONSTRUCTION ENTRANCE

## CONSTRUCTION SEQUENCE

- PRE-CONSTRUCTION MEETING.
- FLAG/MARK CLEARING LIMITS IN FIELD (BY SURVEYOR) AND ARRANGE INSPECTION BY CITY AND PROJECT ARBORIST PRIOR TO ANY CLEARING, GRUBBING, AND EARTHWORK.
- POST SIGN WITH NAME AND PHONE NUMBER OF TESC SUPERVISOR.
- INSTALL PERIMETER PROTECTION (SILT FENCE, WATTLES, ETC.)
- INSTALL CONSTRUCTION ENTRANCE.
- INSTALL BYPASS PUMP SCHEME SO THAT ANTI-AIRCRAFT CREEK CAN UTILIZE THE EXISTING CHANNEL AND BYPASS ALL CONSTRUCTION ACTIVITIES.
- SAWCUT AND INSTALL THE NEW CULVERT CROSSING NEWPORT WAY NW IN ACCORDANCE WITH THE CITY OF ISSAQUAH STANDARDS AND MANUFACTURER'S RECOMMENDATION.
- REMOVE THE FURTHEST UPSTREAM CULVERT PER SHEET C-301 ACCORDING TO THE CITY OF ISSAQUAH STANDARDS
- FINISH INSTALLATION OF CULVERT AND PROPOSED STREAM CHANNEL BEFORE REMOVING BYPASS PUMPS.
- ABANDON THE EXISTING CULVERTS PER THE DEMOLITION PLAN ON SHEET C-301 AND FILL ABANDONED CHANNELS.
- MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH THE CITY OF ISSAQUAH STANDARDS AND MANUFACTURER'S RECOMMENDATION.
- RELOCATE EROSION CONTROL MEASURES OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE, THE EROSION AND SEDIMENT CONTROL IS ALWAYS IN ACCORDANCE WITH THE CITY OF ISSAQUAH TESC MINIMUM REQUIREMENTS.
- DISTURBED AREAS TO BE REVEGETATED WITH NATIVE PLANTS PER CITY OF ISSAQUAH





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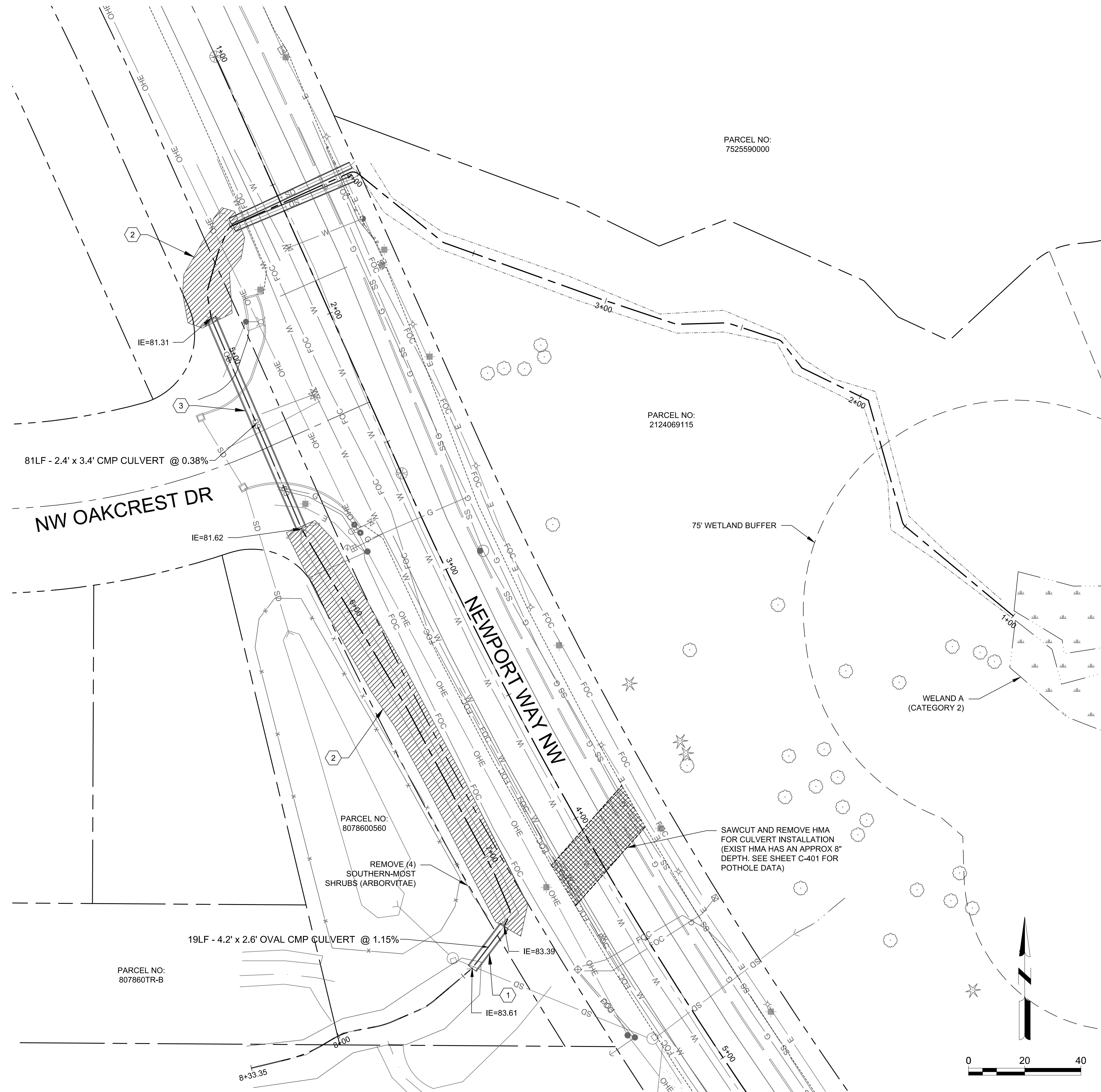
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SHEET CONTENTS  
DEMOLITION PLAN

SHEET NO. 5 of 10

C-301



LEGEND

- POWER/UTILITY POLE
- TRAFFIC SIGNAL BOX
- LUMINAIRE
- GUY ANCHOR
- AREA LIGHT
- BOLLARD
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- HOSE BIB
- COMMUNICATION PEDESTAL
- TRAFFIC SIGN
- SANITARY SEWER LINE
- WATER LINE
- STORM DRAIN LINE
- GAS LINE
- OVERHEAD POWER LINE
- COMMUNICATION/FIBER OPTIC LINE
- GUARD RAIL
- UNDERGROUND POWER
- SAWCUT LINE
- STREAM FILL
- WETLAND
- HMA REMOVAL

DEMOLITION KEYED NOTES

- REMOVE EXISTING CULVERT
- FILL EXISTING STREAM CHANNEL WITH SURPLUS EXCAVATION MATERIAL
- ABANDON EXISTING CULVERT (FILL ENTIRELY WITH CDF)

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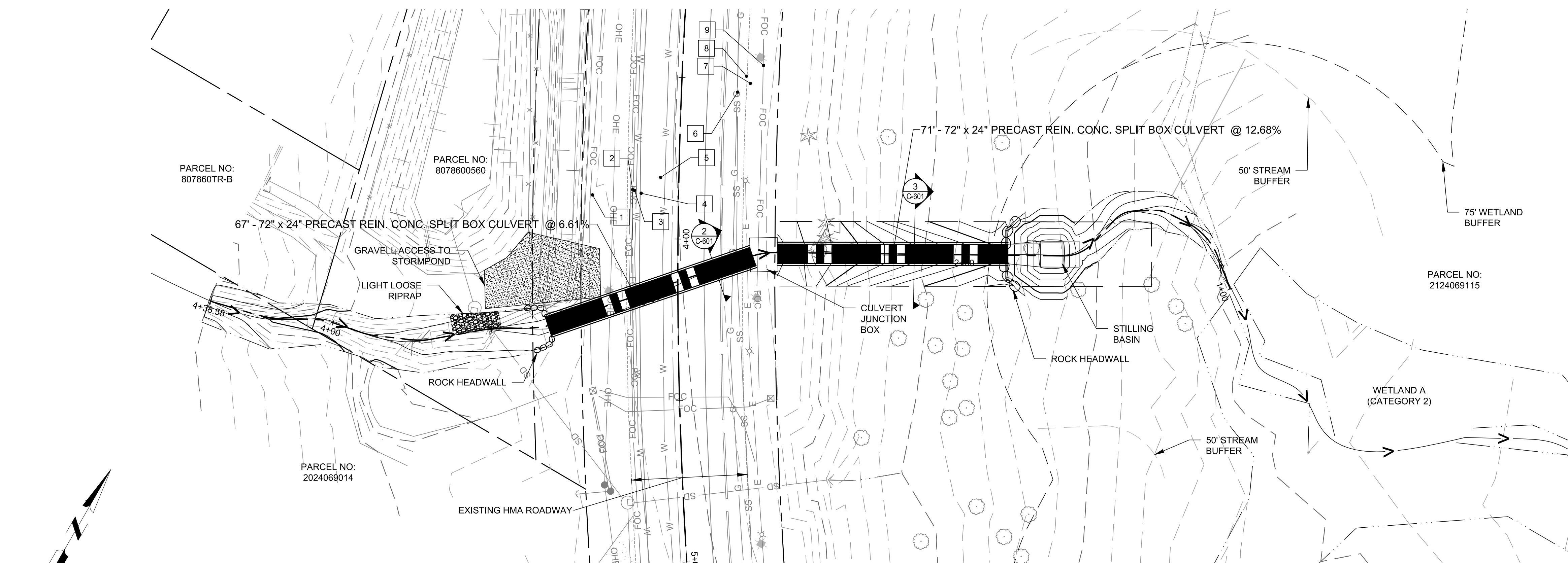
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SHEET CONTENTS  
STREAM & CULVERT  
PLAN AND PROFILE

SHEET NO. 6 of 10

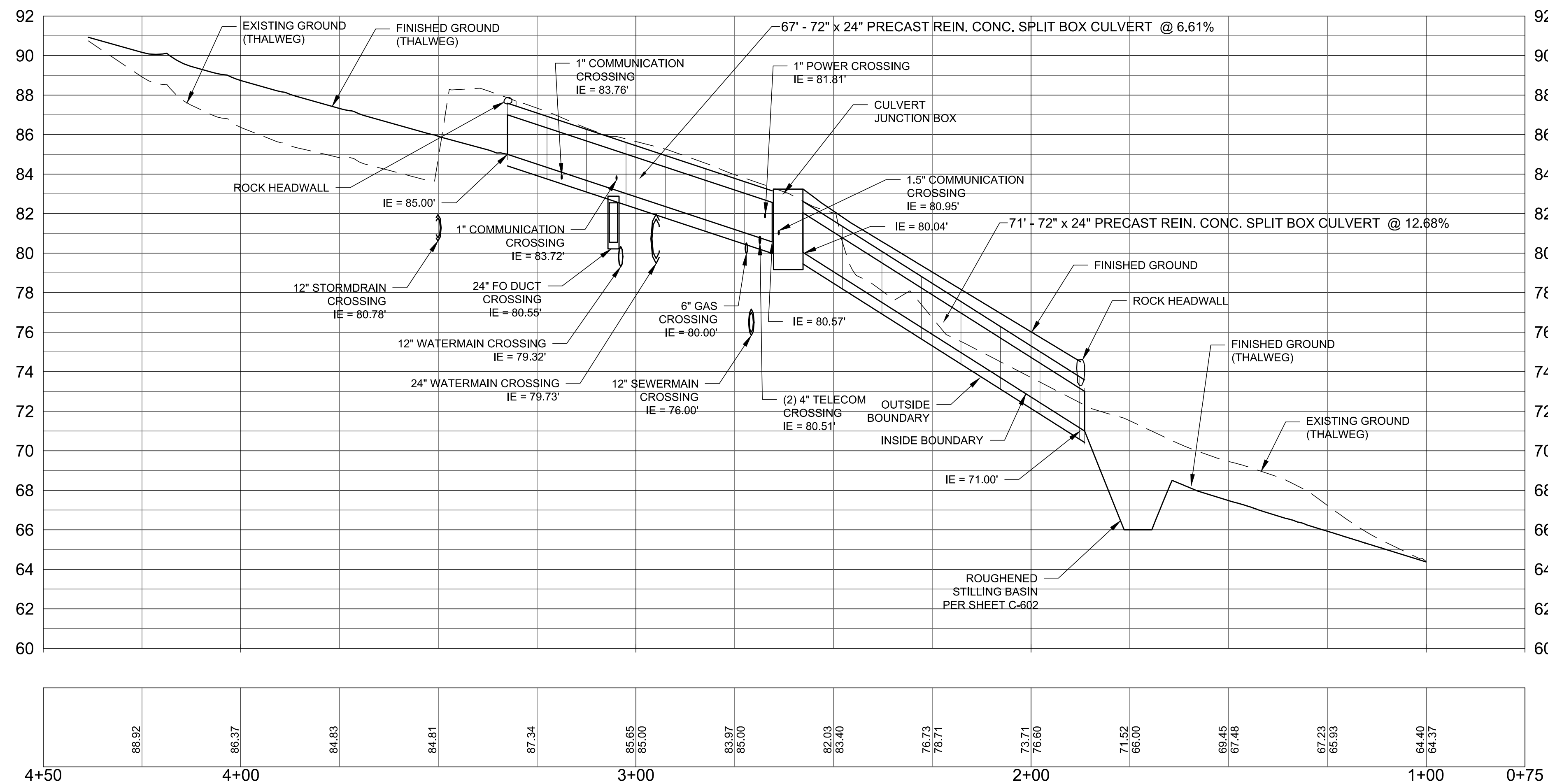
C-401



1 PROJECT PLAN

NOTES

1. PROTECT EXISTING UTILITIES IN PLACE
2. CONTACT U-DIG PRIOR TO ANY GROUND DISTURBING ACTIVITY
3. REFER TO SHEET C-201 FOR LEGEND



2 STREAM & CULVERT PROFILE

NEWPORT WAY NW POT HOLE DATA

POTHOLE #	TARGET UTILITY	DEPTH TO TOP OF UTILITY (IN)	DEPTH TO BOTTOM OF UTILITY (IN)	PIPE/CONDUIT SIZE (IN)	PIPE MATERIAL	ASPHALT THICKNESS (IN)
1	COM	36"	37"	1"	D.B.	-
2	WAT	UNDER F.O. DUCT	UNDER F.O. DUCT	12"	D.I.	8"
3	F.O.	40"	63"	24" WIDE	CONCRETE	8"
4	COM	24.5"	25.5"	1"	D.B.	7"
5	WAT	44"	68"	24"	D.I.	8"
6	GAS	40"	46"	6"	STW	5"
7	TEL	32.5"	37"	(2) x 4"	P.V.C.	4"
8	POWER	19"	20"	1"	P.V.C.	-
9	COM	26"	27.5"	1.5"	D.B.	-



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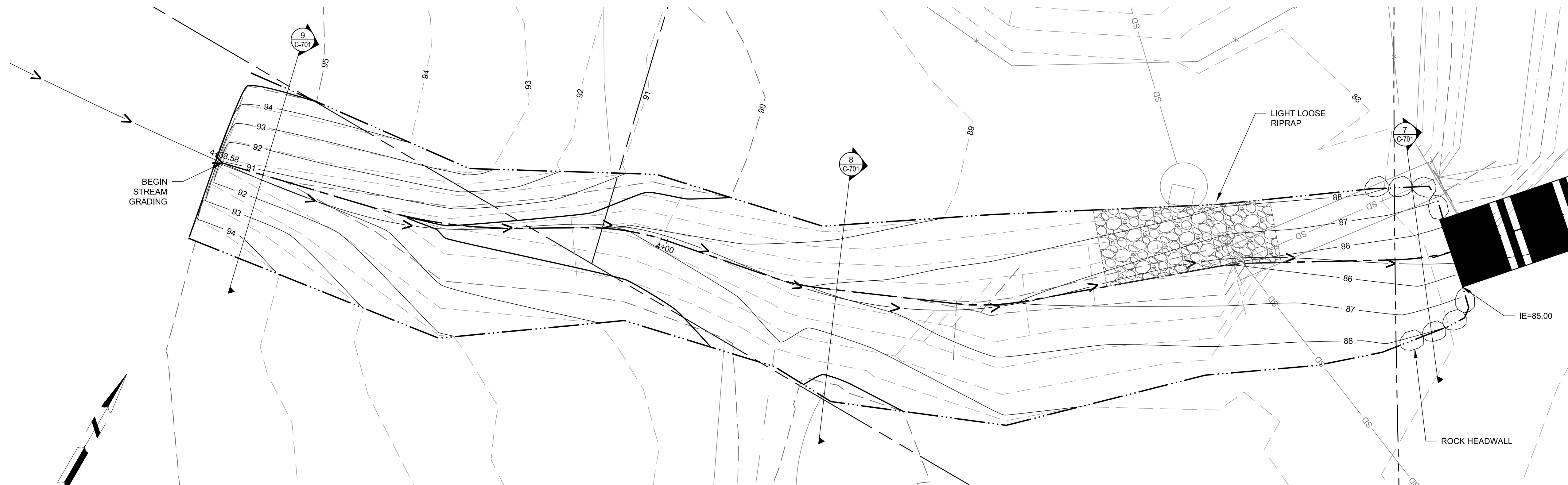
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SHEET CONTENTS  
STREAM CHANNEL  
GRADING

SHEET NO. 7 of 10

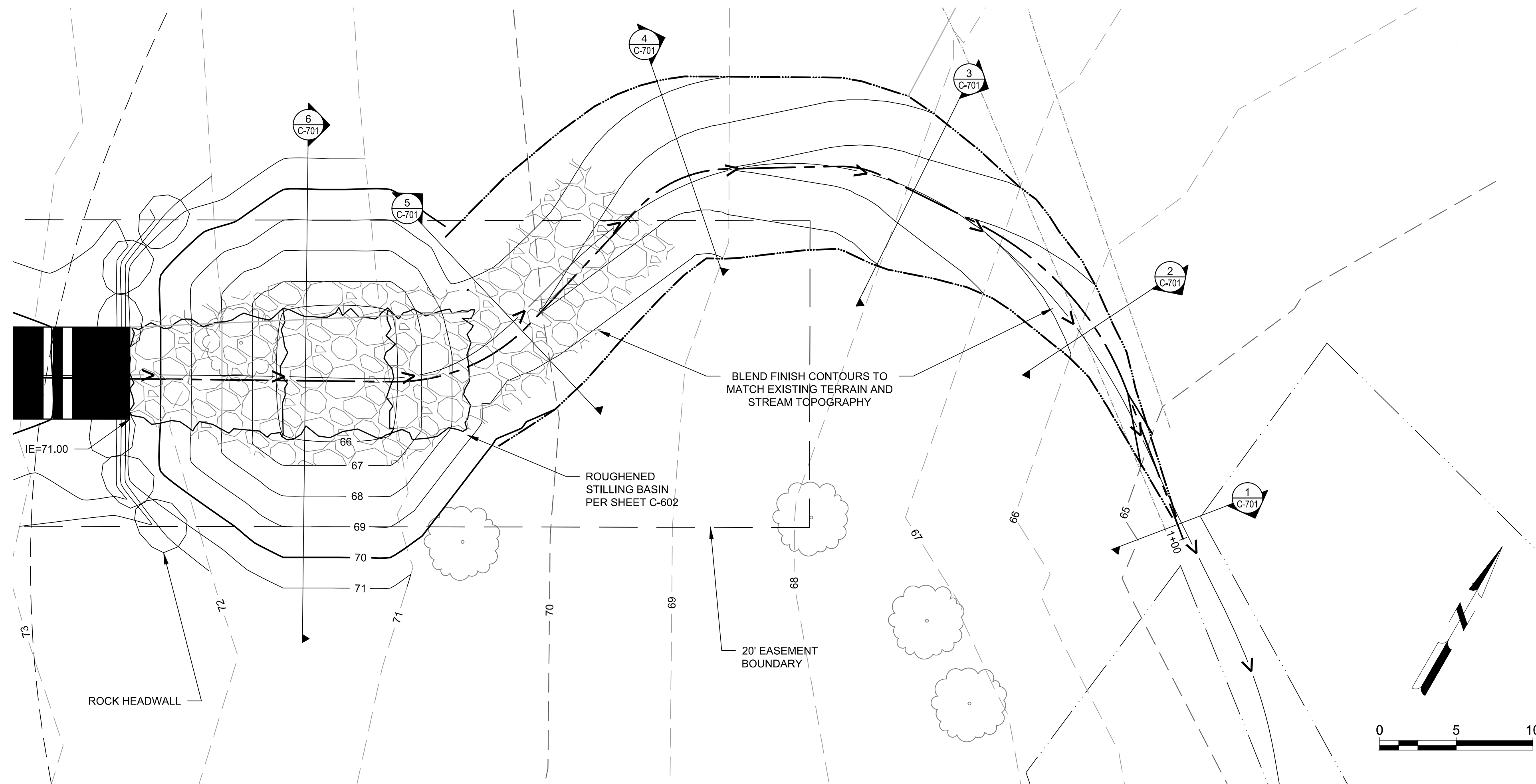
**C-501**



**1**  
**CHANNEL GRADING  
UPSTREAM OF NEWPORT WAY NW**

**NOTES**

1. MATCH THE PROPOSED CHANNEL DOWNSTREAM OF NEWPORT WAY NW TO THE EXISTING CHANNEL WHERE THEY MEET AT APPROXIMATELY STA:1+20
2. GRADE AND RECONTOUR STREAM CHANNEL TO REFLECT FINISH GRADING SHOWN. USE EXISTING/NATIVE MATERIALS



**2**  
**CHANNEL GRADING  
DOWNSTREAM OF NEWPORT WAY NW**

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CITY OF ISSAQUAH  
ANTI-AIRCRAFT CREEK  
CULVERT REPLACEMENT  
50% DESIGN REVIEW SUBMITTAL  
ISSAQUAH, WA 98027

ISSUED

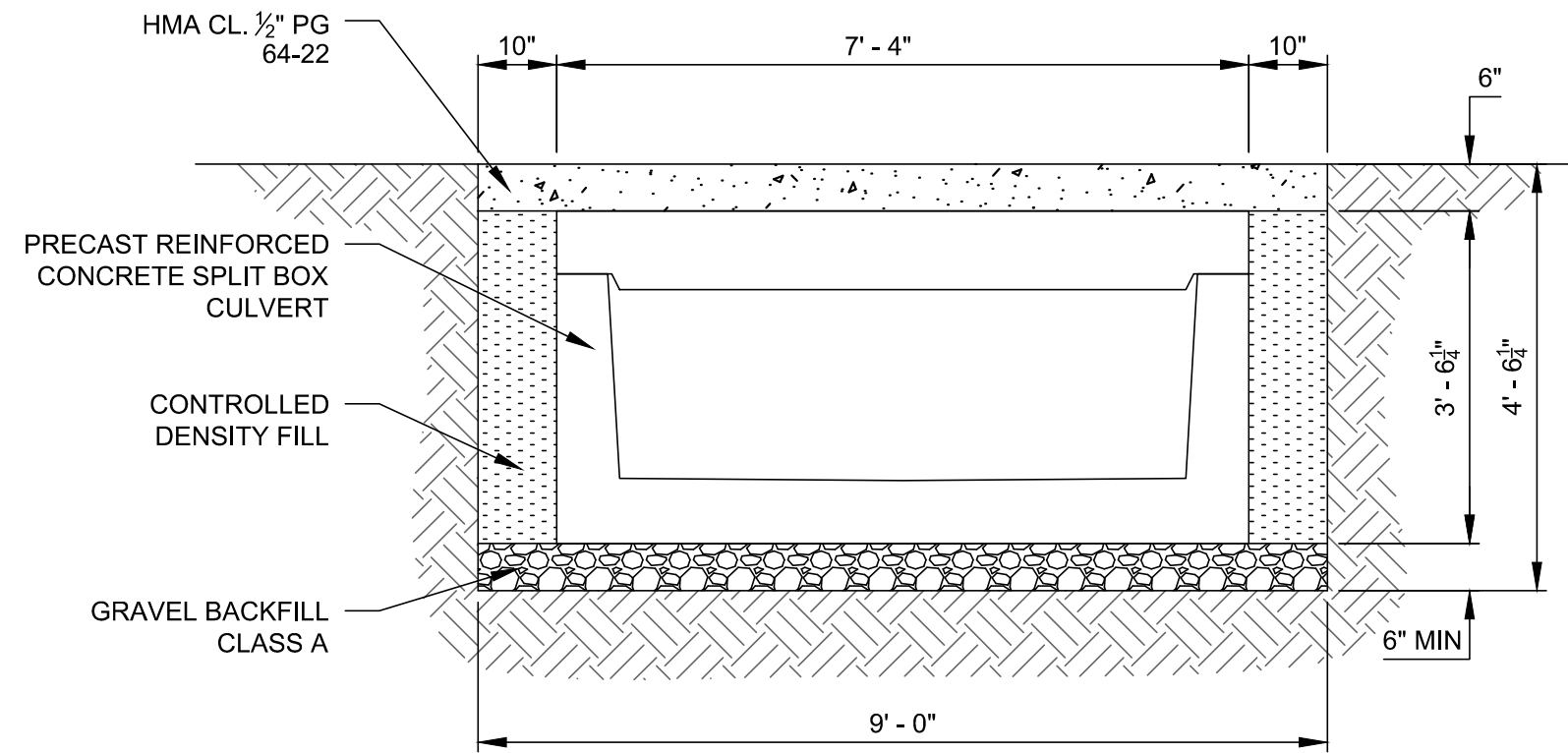
NOT FOR CONSTRUCTION

M&H NO.: 4134300-132044.01  
DATE: JANUARY 05, 2015  
DESIGNED BY: DKE  
DRAWN BY: DKE  
CHECKED BY: DAS/KF  
DO NOT SCALE DRAWINGS

SHEET CONTENTS  
CULVERT DETAIL  
SHEET 1

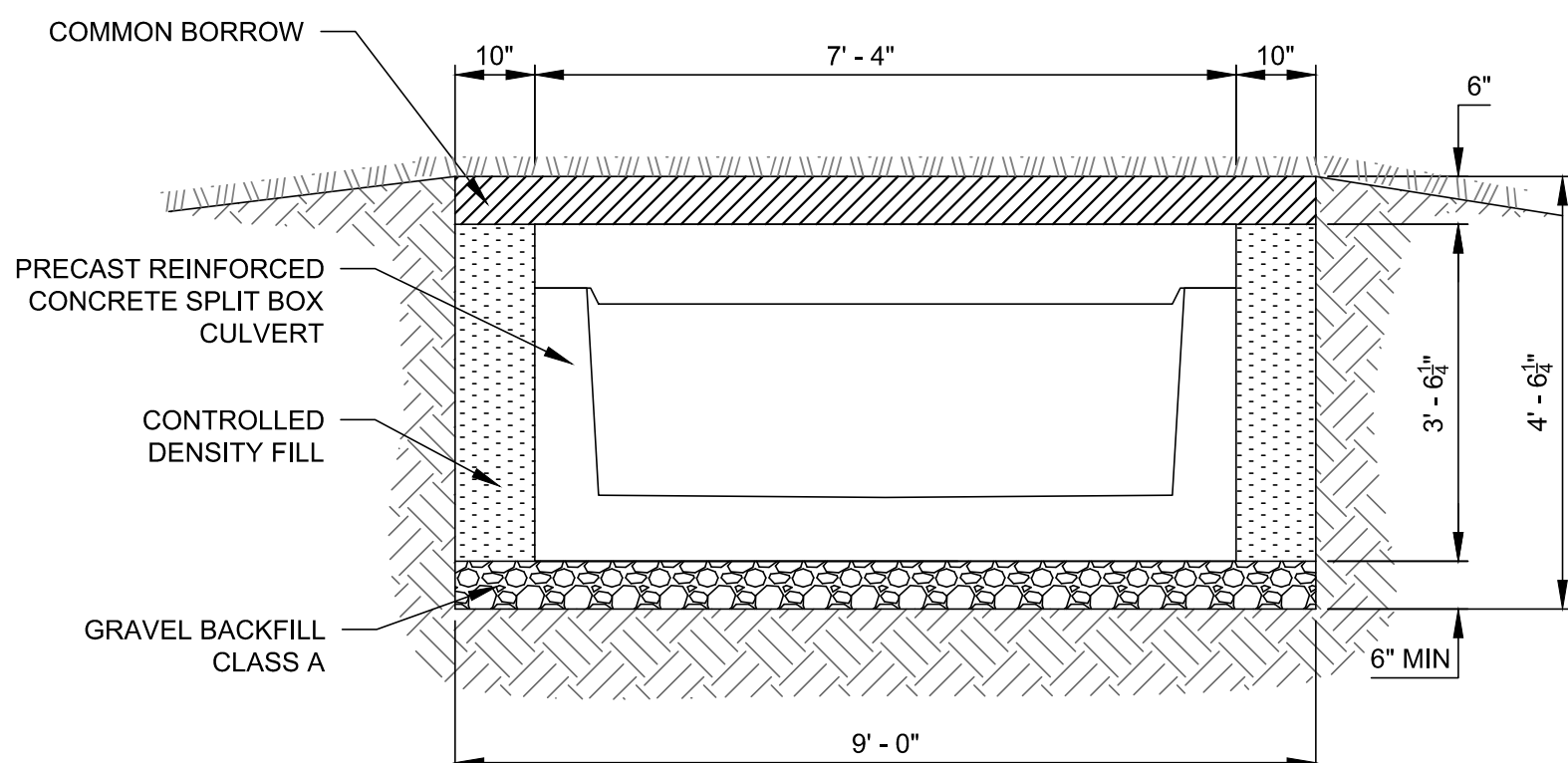
SHEET NO. 8 of 10

C-601



1 CULVERT IN ROADWAY  
SECTION VIEW

SCALE: 1" = 2'

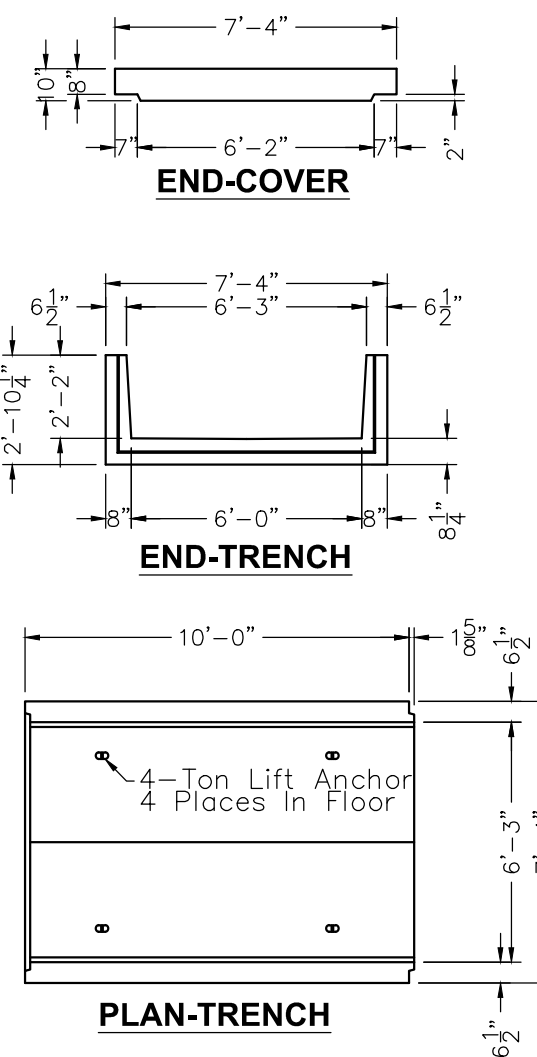
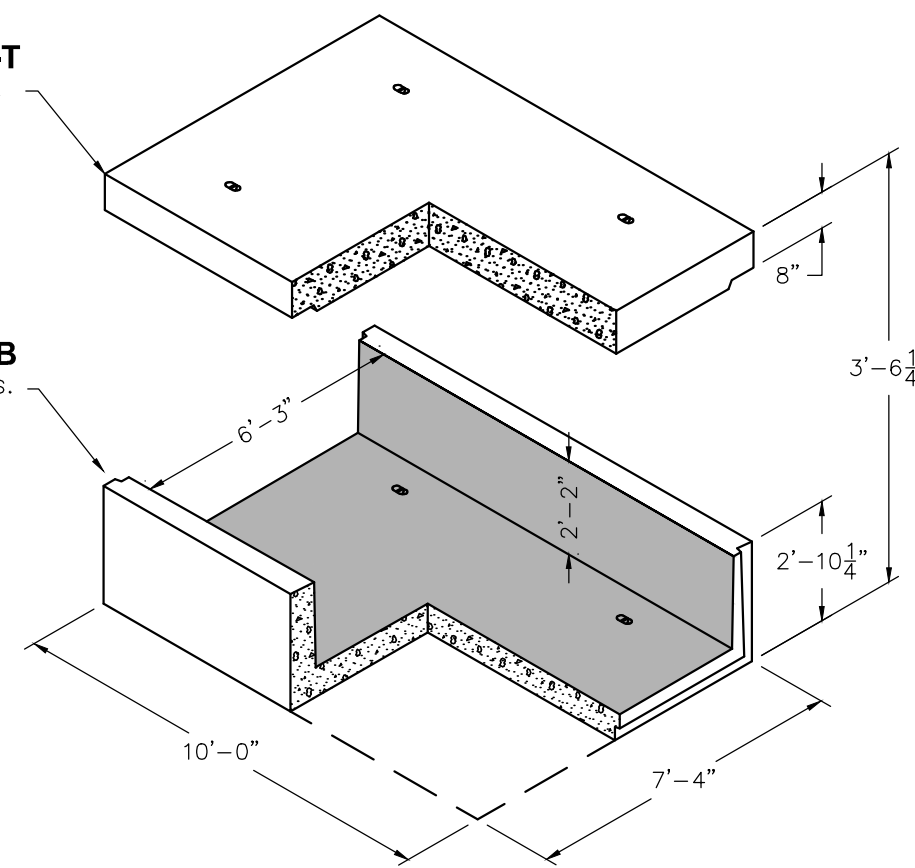


2 CULVERT IN NATURAL MATERIAL  
SECTION VIEW

SCALE: 1" = 2'

COVER  
No. 6070-T  
8,700 lbs.

TRENCH  
No. 6070-B  
20,500 lbs.

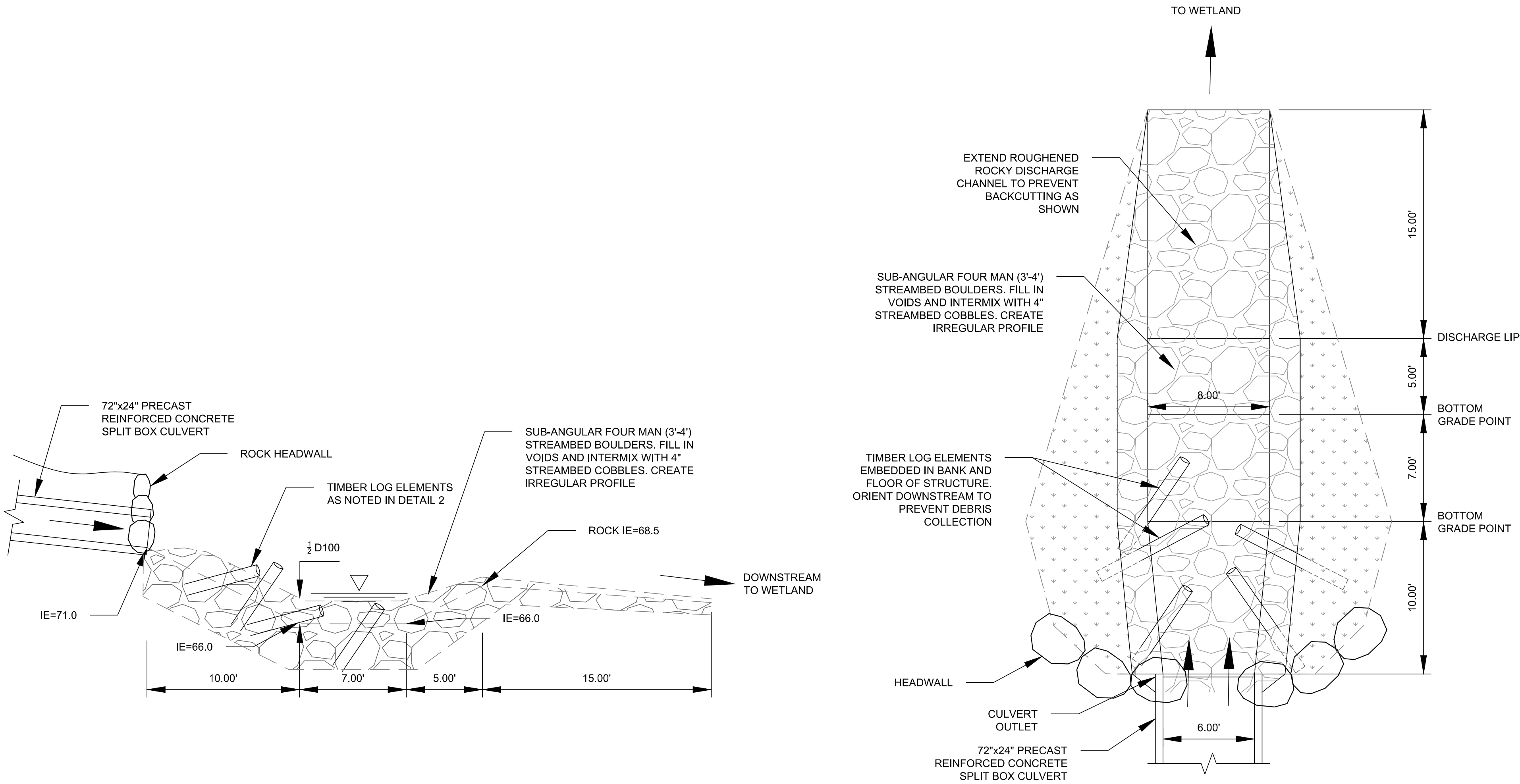


3 PRECAST REINFORCED CONCRETE  
SPLIT BOX CULVERT

SCALE: NTS



X:\4134300\132044.01\TECH\CADC-C-602 CULVERT DETAIL SHEET 2.DWG  
1/8/2016 7:20:20 PM

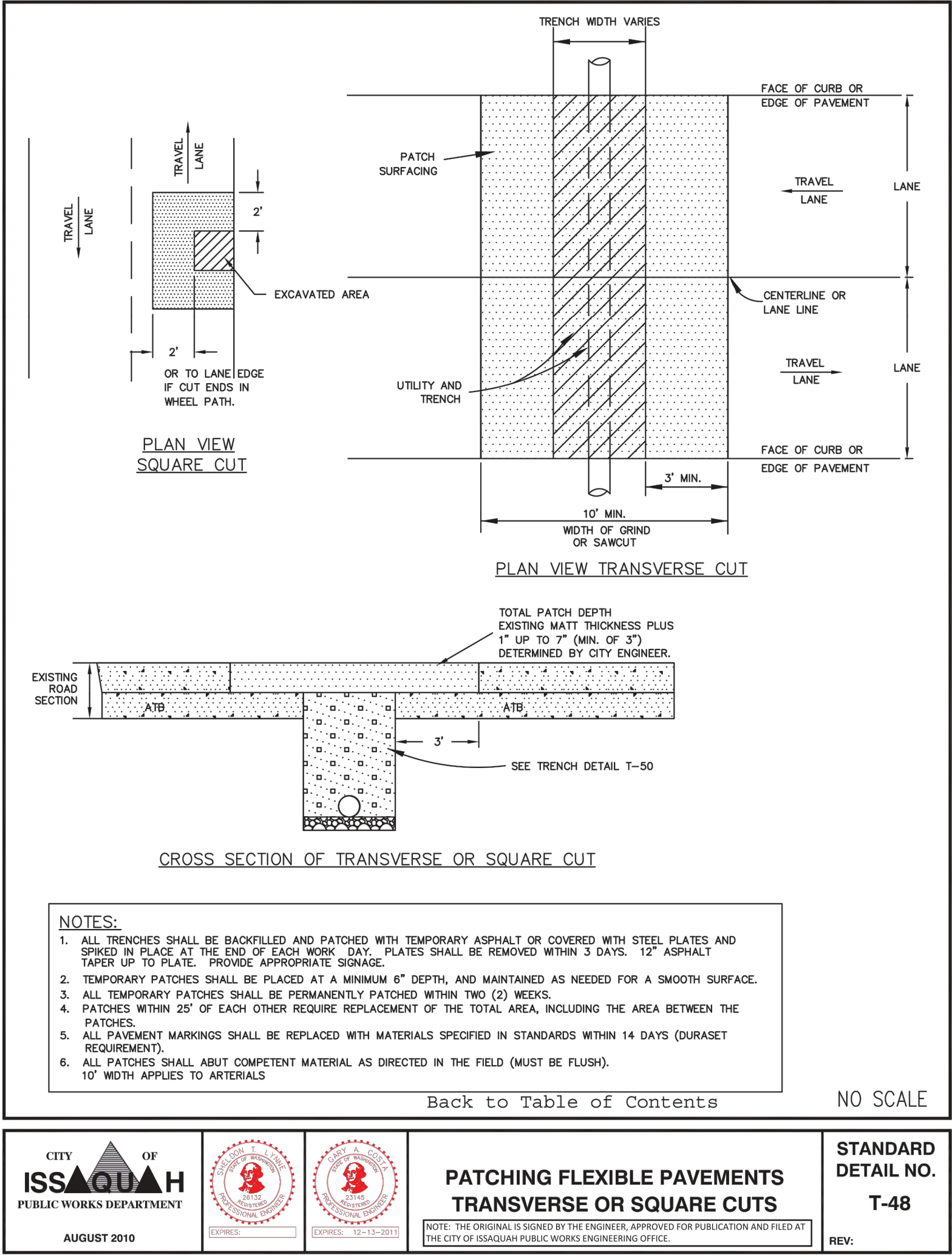


**1** **ROUGHENED STILLING BASIN PROFILE VIEW**  
HORIZ. SCALE: 1" = 5'

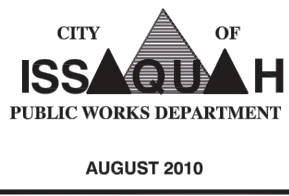
**2** **ROUGHENED STILLING BASIN PLAN VIEW**  
HORIZ. SCALE: 1" = 5'

**NOTES**

1. THE ROUGHENED STILLING BASIN DESIGN WAS DESIGNED TO BE COMPARABLE TO USBR TYPE III STILLING BASIN DESIGN CRITERIA.
2. USE BLOCKY, SUB-ANGULAR BOULDERS SIZED D100 = 3'-4' AVG. DIAMETER.
3. USE WOODY DEBRIS PLACED ANGULARLY DOWNSTREAM SIZED AT 12" MIN DIA. TO 18" DIA. BY 20'-25' LONG. EMBED HALF LENGTH.



- NOTES:**
1. ALL TRENCHES SHALL BE BACKFILLED AND PATCHED WITH TEMPORARY ASPHALT OR COVERED WITH STEEL PLATES AND SPIKED IN PLACE AT THE END OF EACH WORK DAY. PLATES SHALL BE REMOVED WITHIN 3 DAYS. 12" ASPHALT TAPER UP TO PLATE. PROVIDE APPROPRIATE SIGNAGE.
  2. TEMPORARY PATCHES SHALL BE PLACED AT A MINIMUM 6" DEPTH, AND MAINTAINED AS NEEDED FOR A SMOOTH SURFACE.
  3. ALL TEMPORARY PATCHES SHALL BE PERMANENTLY PATCHED WITHIN TWO (2) WEEKS.
  4. PATCHES WITHIN 25' OF EACH OTHER REQUIRE REPLACEMENT OF THE TOTAL AREA, INCLUDING THE AREA BETWEEN THE PATCHES.
  5. ALL PATCHMENT MARKINGS SHALL BE REPLACED WITH MATERIALS SPECIFIED IN STANDARDS WITHIN 14 DAYS (DURASET REQUIREMENT).
  6. ALL PATCHES SHALL ABUT COMPETENT MATERIAL AS DIRECTED IN THE FIELD (MUST BE FLUSH). 10' WIDTH APPLIES TO ARTERIALS



**PATCHING FLEXIBLE PAVEMENTS  
TRANSVERSE OR SQUARE CUTS**

NOTE: THE ORIGINAL IS SIGNED BY THE ENGINEER, APPROVED FOR PUBLICATION AND FILED AT THE CITY OF ISSAQUAH PUBLIC WORKS ENGINEERING OFFICE.

**STANDARD  
DETAIL NO.  
T-48**

REV:

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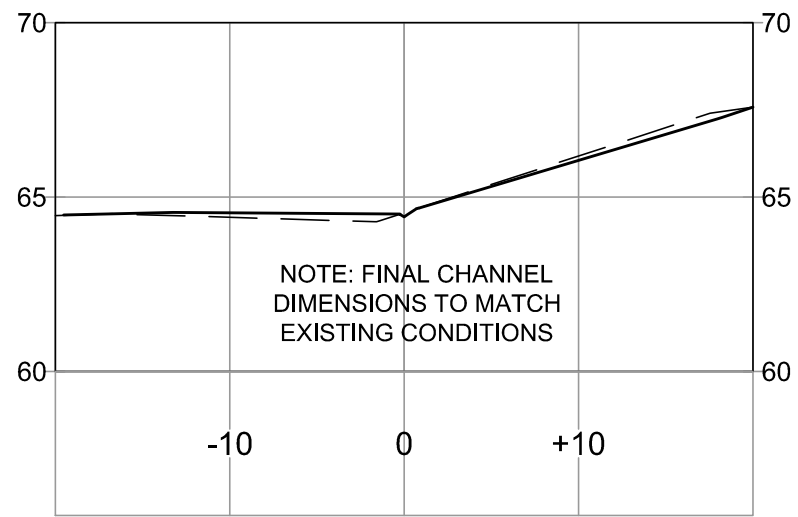
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SHEET CONTENTS  
CULVERT DETAIL  
SHEET 2

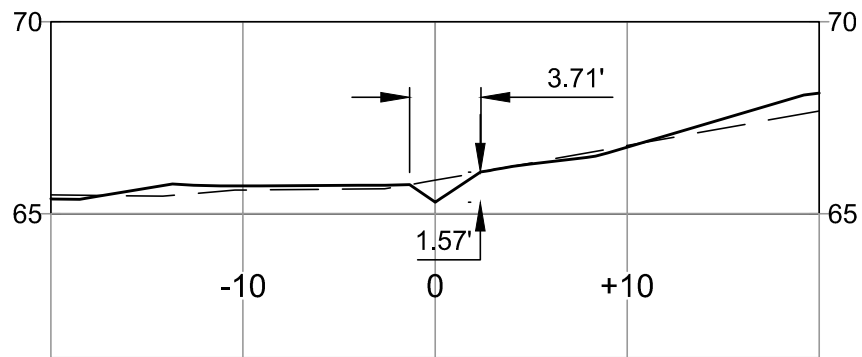
SHEET NO. 9 of 10

**C-602**



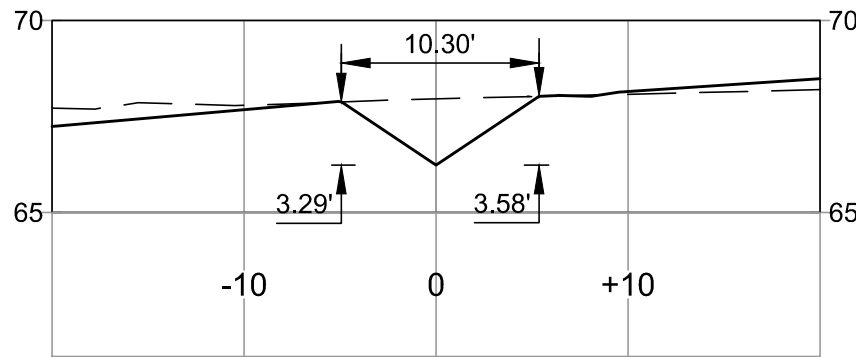
**1** CHANNEL CROSS SECTION  
STATION: 1+01.00

HORIZ. SCALE: 1" = 10'  
VERT. SCALE: 1" = 5'



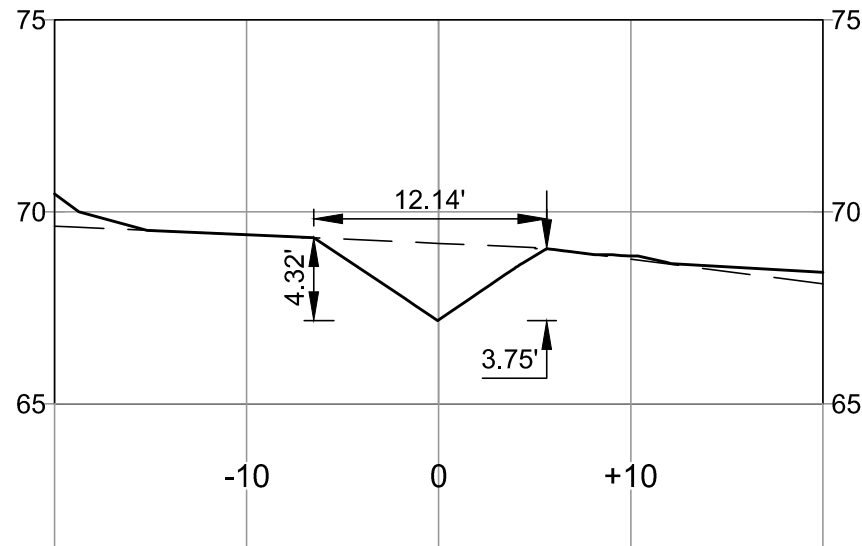
**2** CHANNEL CROSS SECTION  
STATION: 1+15.00

HORIZ. SCALE: 1" = 10'  
VERT. SCALE: 1" = 5'



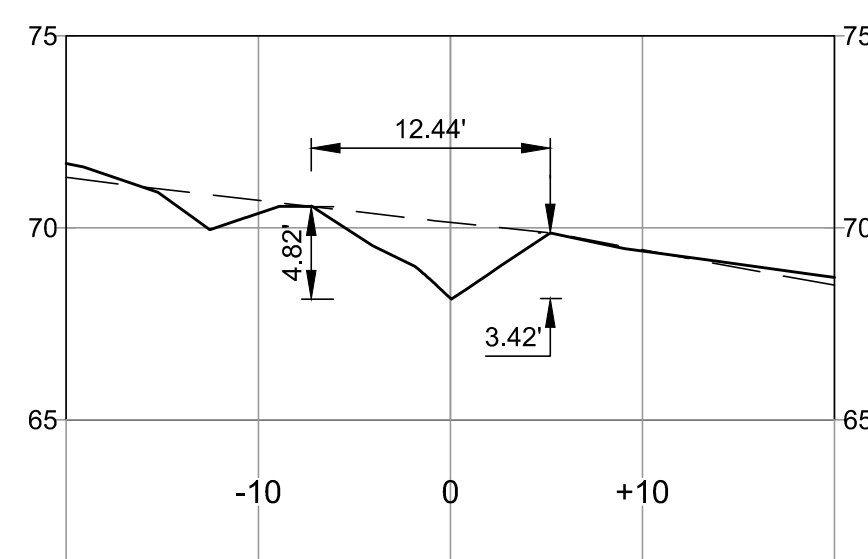
**3** CHANNEL CROSS SECTION  
STATION: 1+30.00

HORIZ. SCALE: 1" = 10'  
VERT. SCALE: 1" = 5'



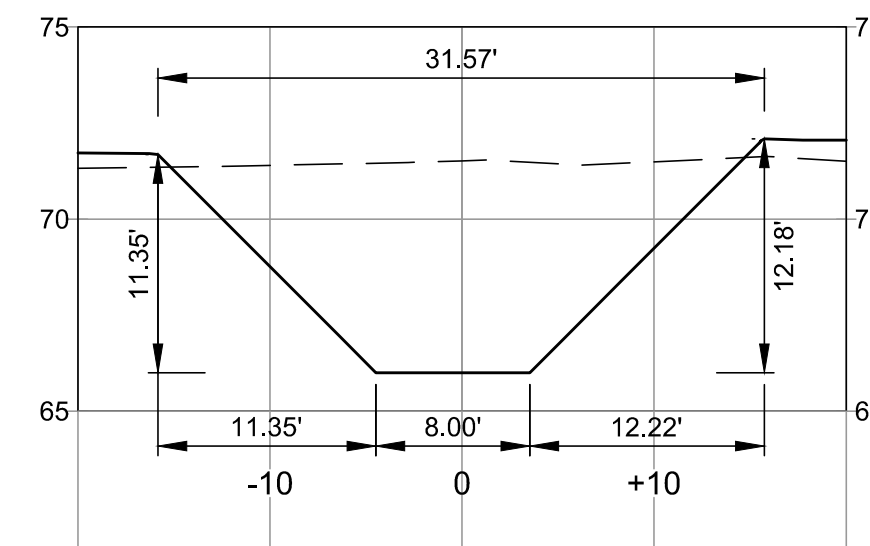
**4** CHANNEL CROSS SECTION  
STATION: 1+45.00

HORIZ. SCALE: 1" = 10'  
VERT. SCALE: 1" = 5'



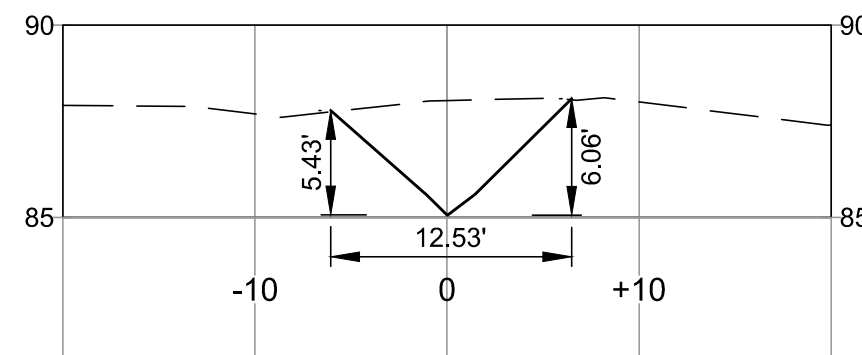
**5** CHANNEL CROSS SECTION  
STATION: 1+60.00

HORIZ. SCALE: 1" = 10'  
VERT. SCALE: 1" = 5'



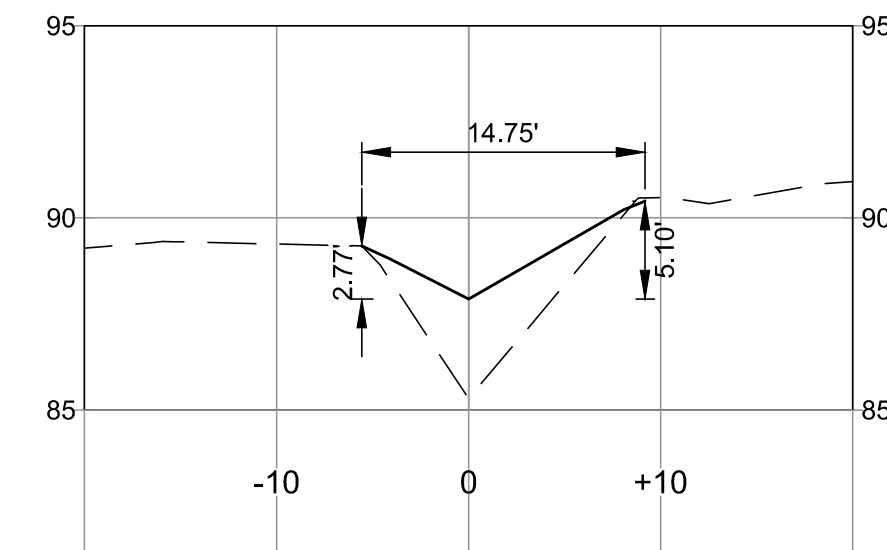
**6** CHANNEL CROSS SECTION  
STATION: 1+75.00 (STILLING BASIN)

HORIZ. SCALE: 1" = 10'  
VERT. SCALE: 1" = 5'



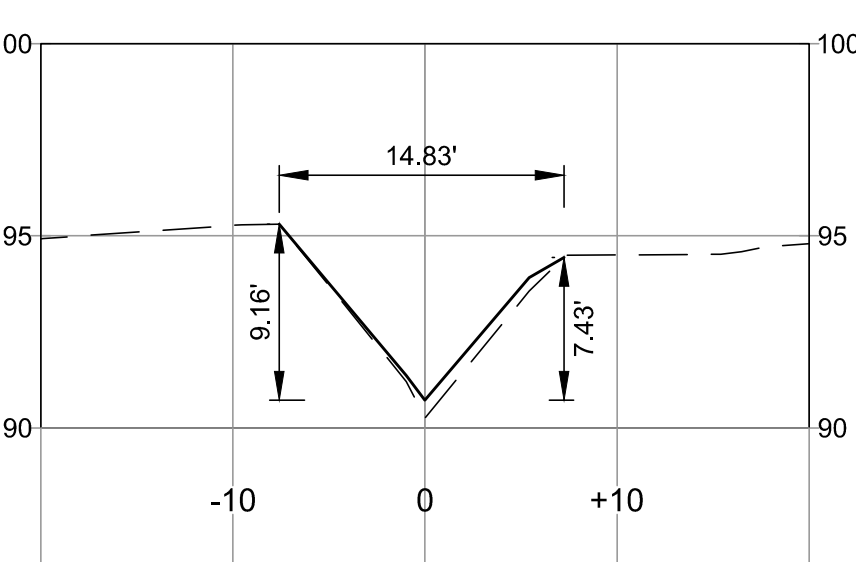
**7** CHANNEL CROSS SECTION  
STATION: 3+35.00

HORIZ. SCALE: 1" = 10'  
VERT. SCALE: 1" = 5'



**8** CHANNEL CROSS SECTION  
STATION: 3+85.00

HORIZ. SCALE: 1" = 10'  
VERT. SCALE: 1" = 5'

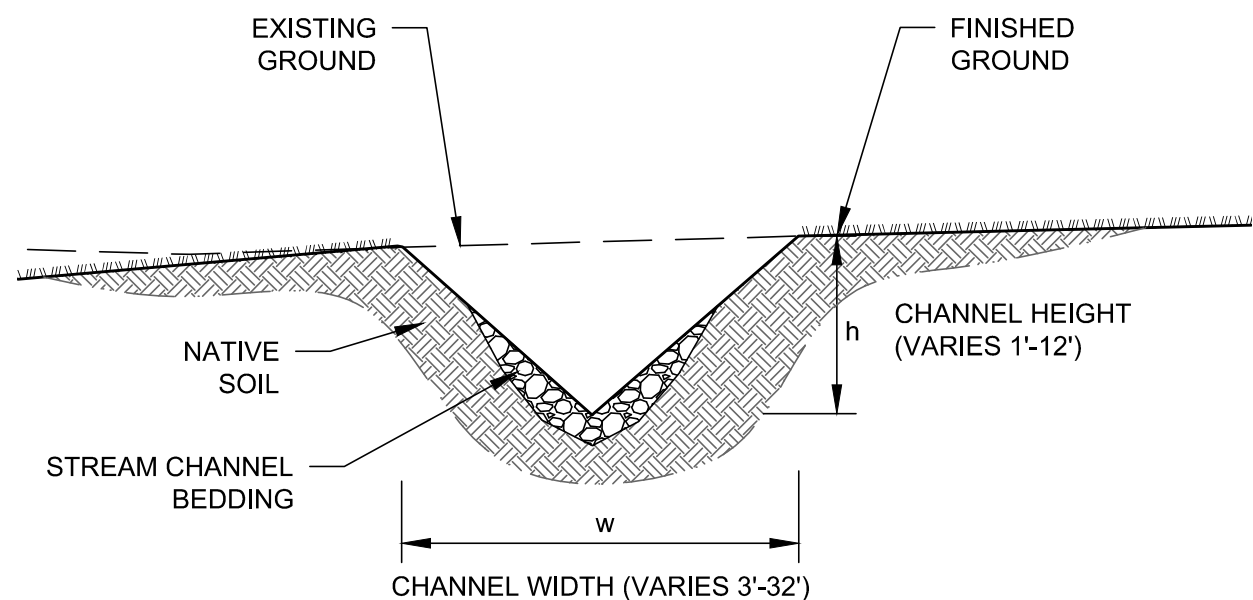


**9** CHANNEL CROSS SECTION  
STATION: 4+35.00

HORIZ. SCALE: 1" = 10'  
VERT. SCALE: 1" = 5'

## LEGEND

- EXISTING GROUND  
— PROPOSED FINISHED GROUND



**TYP** CHANNEL CROSS SECTION  
TYPICAL

SCALE: NTS